Proposed Woodward Point White Pine Realized Gain Trial

Scoping Notice

Montana Department of Natural Resources and Conservation
Trust Land Management Division
Forest Management Bureau

August 11, 2011

The Montana Department of Natural Resources and Conservation (DNRC), Trust Lands Management Division (TLMD), Forest Management Bureau, in cooperation with the Inland Empire Tree Improvement Cooperative and USDA Forest Service, proposes to establish a research site for a western white pine realized gain trial on 28 acres in Section 2, T.23N, R.18W in the Swan River State Forest (*see attached Vicinity Map*). Realized gain trials are done to evaluate the performance of improved seed sources under operational conditions.

Western white pine (*Pinus monticola*) has a limited distribution in Montana due to its requirements for moist growing sites, and plays an important ecological role where it occurs. White pine blister rust (*Cronartium ribicola*), a non-native disease affecting five-needle pines, has greatly reduced the amount of western white pine on the landscape of the Inland Northwest. Maintaining current western white pine stands and restoring western white pine in areas where it has historically occurred are key components of DNRC's strategies to promote biodiversity on State lands. Information collected from the proposed study would assist DNRC in its efforts to successfully manage for western white pine.

The proposed research would be a cooperative, long-term study, known as a realized gain trial, to evaluate growth, infection rates, and mortality of rust-resistant western white pine in a natural environment (as opposed to a nursery or laboratory). The realized gain trial would consist of approximately 6,800 western white pine seedlings that would be planted and periodically re-measured/monitored for at least 25 years. Each re-measurement would collect data on tree height, diameter, and blister rust incidence and location. This data would be used to evaluate and compare various rust-resistant seed sources with the goal of improving those seed sources for use in future reforestation activities involving western white pine throughout the Inland Northwest.

The study design includes three replications, with each replication containing 46 blocks of 49 trees, requiring an area of up to 17 acres. A 100-foot buffer surrounding the test trees is required, increasing the acreage needed to establish the trial to 28 acres. Additional trees that are not part of the trial would be planted inside the 100-foot buffer area.

The Forest Management Bureau has identified a suitable site for the proposed research on 28 acres in Section 2, T.23N, R.18W in the Swan River State Forest (*see attached Site Location Map*). The area was harvested in 2010 under the White Porcupine Multiple Timber Sales EIS, and currently contains approximately 6 trees per acre (total live and dead). The activities necessary to establish the trial on the site (and the potential time frame for conducting them) include the following:

1. Removal of the remaining seed trees on 28 acres (August/September, 2011)
2. Removal of standing dead timber (snags) on up to 17 acres (August/September 2011)
3. Site preparation (excavator) on up to 17 acres (September/October 2011)
4. Tree planting on up to 28 acres (May/June 2012).

The removal of all seed trees within the 28 acre area and snags within the 17 acre area is necessary to provide uniform site conditions for the trees planted as part of the trial, and to decrease the likelihood of natural seeding into the area. The removal of the seed trees is expected to yield 85 thousand board feet (MBF) of timber, with income from the harvest of that timber benefitting the Common Schools trust. An estimated $3,300 in Forest Improvement fees would also be collected.

The removal of snags and snag recruits on up to 17 acres would require approval of a site-specific alternative practice approved by the Forest Management Bureau Chief as described in ARM 36.11.449, as the number of snags remaining would be fewer than the number required by ARM 36.11.411. Site preparation activities may also reduce the amount of coarse woody debris to levels less than those recommended in ARM 36.11.414, also requiring the approval of a site-specific alternative practice.

We welcome your comments on this proposal, which may be submitted electronically or via mail to Tim Spoelma **prior to August 22, 2011** at the contact information listed below**.**

Sincerely,

Tim Spoelma
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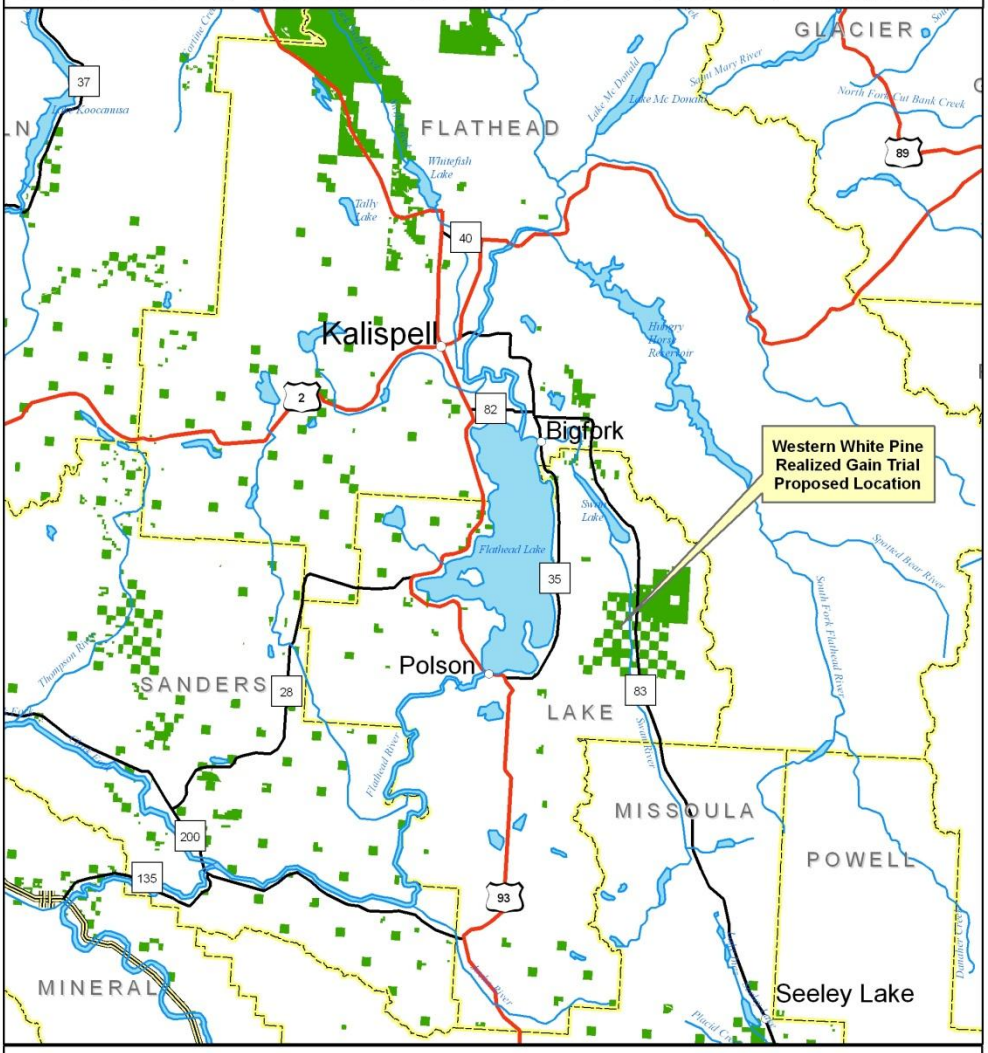
Woodward Point White Pine Realized Gain Trial

Vicinity Map

Montana DNRC, Swan River State Forest ***Section 2, T.23N, R.18W***



Legend

- City or Town
- River or Stream
- State Highway
- U.S. Highway
- Lake
- County
- State Lands

0 3.5 7 14 21 28 35 Miles

N

MONTANA DNRC

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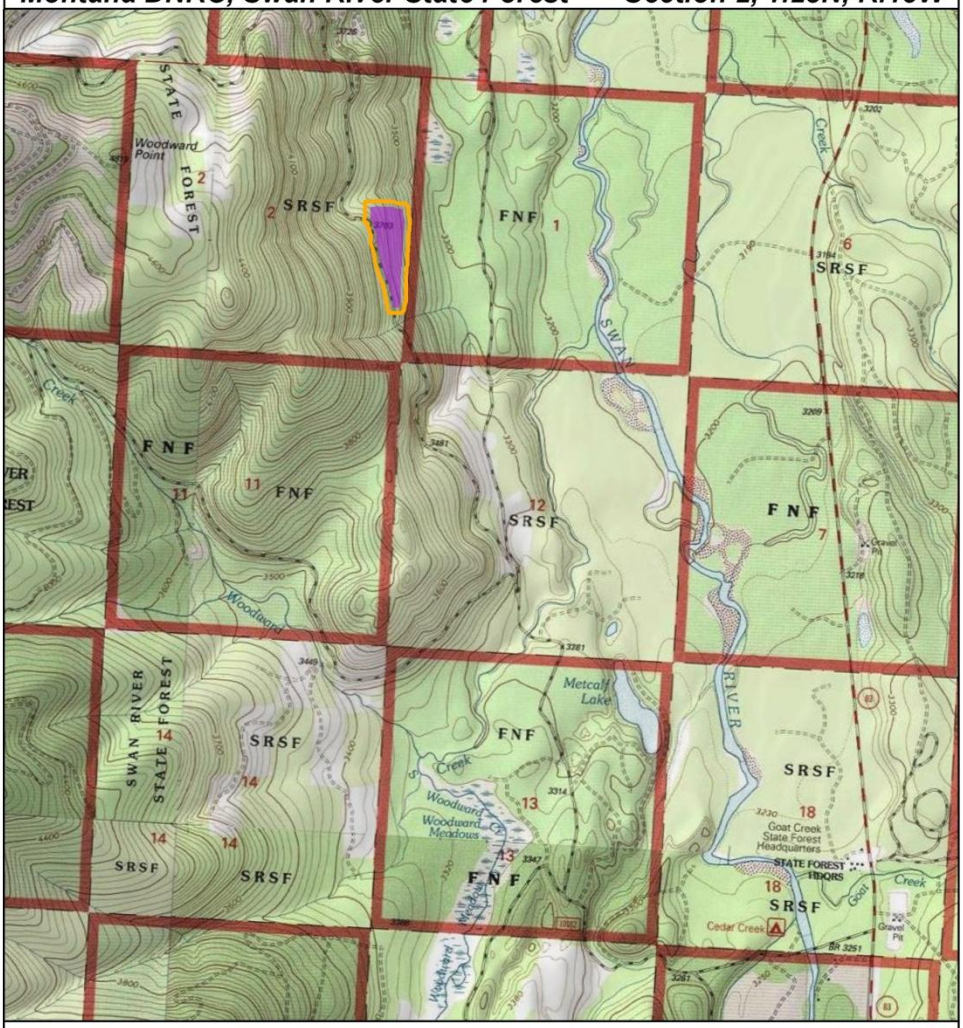
Site Location Map

Montana DNRC, Swan River State Forest ***Section 2, T.23N, R.18W***



Legend

Realized Gain Trial

100-foot Buffer

NORTH

0 0.25 0.5 0.75 1 Miles

Base Map Data Source: ESRI USA Topo Maps Layer, 5/20/2010
Map Created by: T. Spoelma, MT DNRC, 8/10/2011.